# FISSURELLIDAE FROM THE "FLINDERSIAN" REGION, SOUTHERN AUSTRALIA.

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Figs. 1-3.

In 1903 Hedley proposed a division of the Australian coast into four faunal regions, which he named Solanderian, Dampierian, Adelaidean, and Peronian.(1)

The "Adelaidean" region extends from Wilson's Promontory, Victoria, to Sharks Bay, Western Australia; the term suggests an area around Adelaide, and seems too localized in meaning for a faunal area extending over nearly all the southern and half the western coasts of Australia. Further, with the exception of the "Adelaidean," the faunal areas are named after famous men connected with Australian history. It is proposed, therefore, to hereafter substitute for it the term "Flindersian."

### Diodora lincolnensis sp. nov.

Shell ovate, wider posteriorly, elevated, conical. Length, 41 mm.; width at middle, 29·2 mm.; height, 18 mm. Length of posterior slope from posterior margin to centre of perforation, 29 mm. Posterior slope convex, anterior

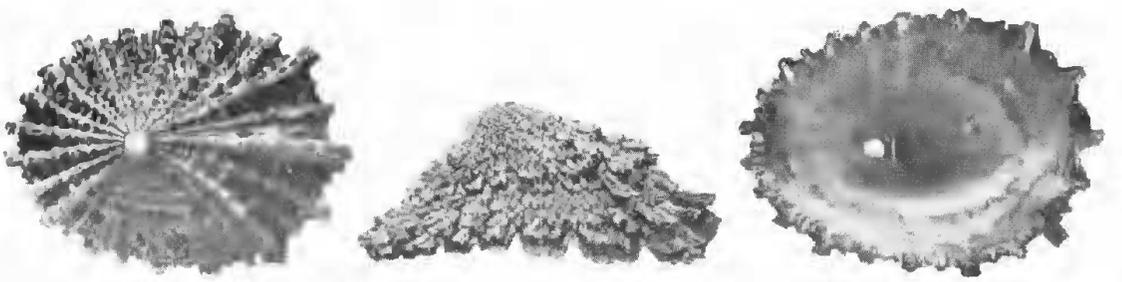

Fig. 1. *Diodora lincolnensis* sp. nov.

slightly concave. Perforation rectangular, 2·5 mm. long and 2 mm. wide. Internal callus surrounding the perforation, truncate posteriorly. Sculpture consists of eighteen prominent radials, larger posteriorly, with one smaller interstitial between the 12 anterior, and two between the posterior. Eighteen concentric laminae cross the radials, forming beautiful, digitate scales at the

(1) Proc. Linn. Soc., N.S.W., 1903, pt. 4, p. 880.

intersections. The radials show corresponding weak depressions internally. Ground colour yellowish, radials tinged with brown, and the depressions caused by the latticed sculpture blue.

Type. Port Lincoln, South Australia. In the South Australian Museum (D. 9753).

The radula, formula ∝ 1.4.1.4.1. ∝ consists of a wide central tooth (A), set obliquely on the radula. Four very narrow laterals (B). One large major lateral (C), having two cusps, the under and larger much stronger than the upper. An indefinite number of very narrow marginals (D), attached to a base which is apparently folded. The various teeth are drawn separated in the illustration in order to show their individual shape distinctly.

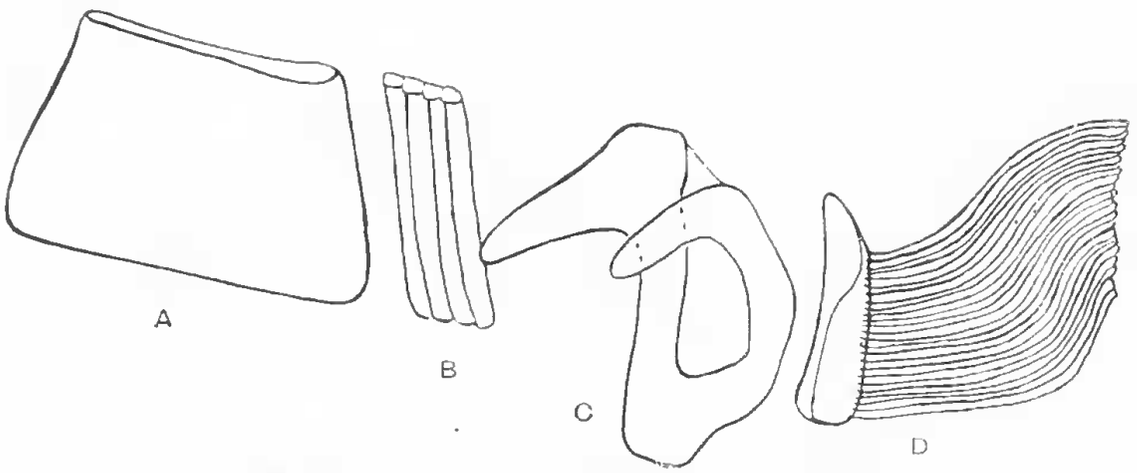


Fig. 2. Radula of *Diodora lincolnensis* sp. nov. (200 ×.)

*Loc.* Newland Head, 20 fathoms; Backstairs Passage, 13 fathoms; Brighton; Investigator Strait, 15 fathoms; Corney Point; Port Lincoln; Laura Bay; Murat Bay; Albany; Yallingup; Bunbury, 22 fathoms.

A large beach-worn specimen from Port Lincoln measures 60 mm. long, 40 mm. wide, and 25 mm. high. This shell somewhat resembles the Queensland shell *F. jukesi* Reeve, but is far more validly sculptured.

### ELIGDION OCCIDUUS sp. nov.

Shell ovate, elevated, conical. Length, 27 mm.; width at middle, 19·5 mm.; height, 13·3 mm. Length of posterior slope from posterior margin to centre of perforation, 17·5 mm. Posterior slope convex, anterior almost straight. Perforation rectangular, slightly rounded posteriorly, 2·2 mm. long and 1·4 mm. wide. Internal callus surrounding perforation not truncate posteriorly. There are about sixteen primary radials; between these, at varying distances from the

perforation, about sixteen secondaries, and at a still further distance between some of these, tertiary radials form, raising the total number to fifty-five. Seventeen concentric laminae cross the radials, forming prominent scales at the intersections. At and inside the margin are notches corresponding with the external ribs. Colour greyish-green externally, but this may not be its colour in life. White internally, with a blue band surrounding the perforation.

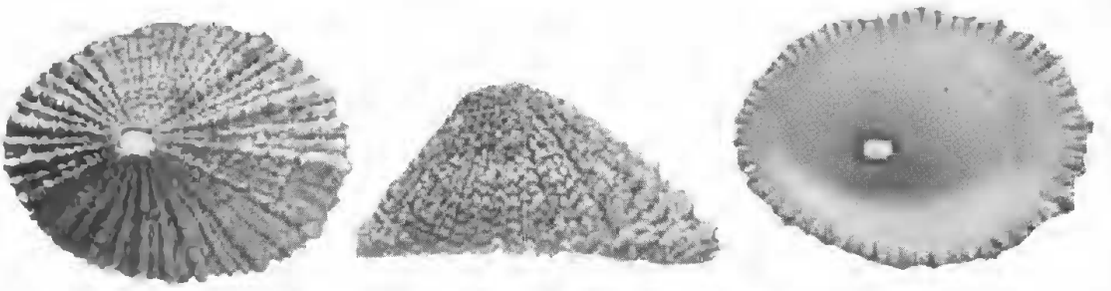

Fig. 3. *Eligidion occidnus* sp. nov.

Type. Shark Bay, West Australia. In the South Australian Museum (D. 9772).

The type was found by Mr. Edwin Ashby. The absence of truncation of the internal callus of the perforation locates this species in the genus *Eligidion*. The type species, *E. audax*, is more depressed, has fewer, more widely spaced, latticed and unscaled radials.

This shell comes from a critical locality. In Sir Joseph Verco's collection of *Fissurellidae* from South and south Western Australia, many genera and species occur, but not one example of this form. It is therefore probably a Dampierian species.

### EMARGINULA SUPERBA PATULA subsp. nov.

In this Flindersian subspecies the alternate large ribs are white from apex to margin, and separated by one large and two small pinkish-brown coloured ribs. The margin spreads more than in *E. superba* Hedley, being widest at the lateral line of the apex, and it is more attenuate anteriorly.

Type. Beachport, 200 fathoms. 19·3 mm. long, 14 mm. wide, 5·6 mm. high. In South Australian Museum (D. 9725).

*Loc.* Beachport to Fremantle, down to 200 fathoms.

### EMARGINULA CONVEXA FLINDERSI subsp. nov.

South Australian specimens are a little larger than the Queensland *E. convexa*, which are narrower and less spreading in the adult.

Type. Cape Jaffa, 130 fathoms. 3·5 mm. long, 2·7 mm. wide, 1·7mm. high. In South Australian Museum (D. 10124).

*Loc.* Beachport to Cape Jaffa, 130 to 150 fathoms.

### MACROCHISMA TASMANIAE ROSEORADIATA Ten. Woods.

Two specimens from St. Francis Island are cream coloured with fourteen and seventeen red radials. They are slightly less solid than the typical *M. tasmaniae*, and the fissure is regularly oval, not narrowing towards the apex of the shell, as in that species.

*Loc.* St. Francis Island.

### FISSURISEPTA FUMARIUM Hedley *(Puncturella)*.

This species has the apex absorbed in the adult, a peculiarity which distinguishes it from *Puncturella*. It should therefore be placed in *Fissurisepta*, the type of which is *F. papillosa* Seguenza.

*Loc.* 100 fathoms, 40 miles south of Cape Wills.